5 719.32 P33+ 1977

ROOKERY MANAGEMENT PLAN

PLEASE RETURN

STATE DOCUMENTS COLLECTION

MAR 2 R 10RD





Montana Department of Fish & Game Parks Division

FEB 101988

WIN 8 0 2000



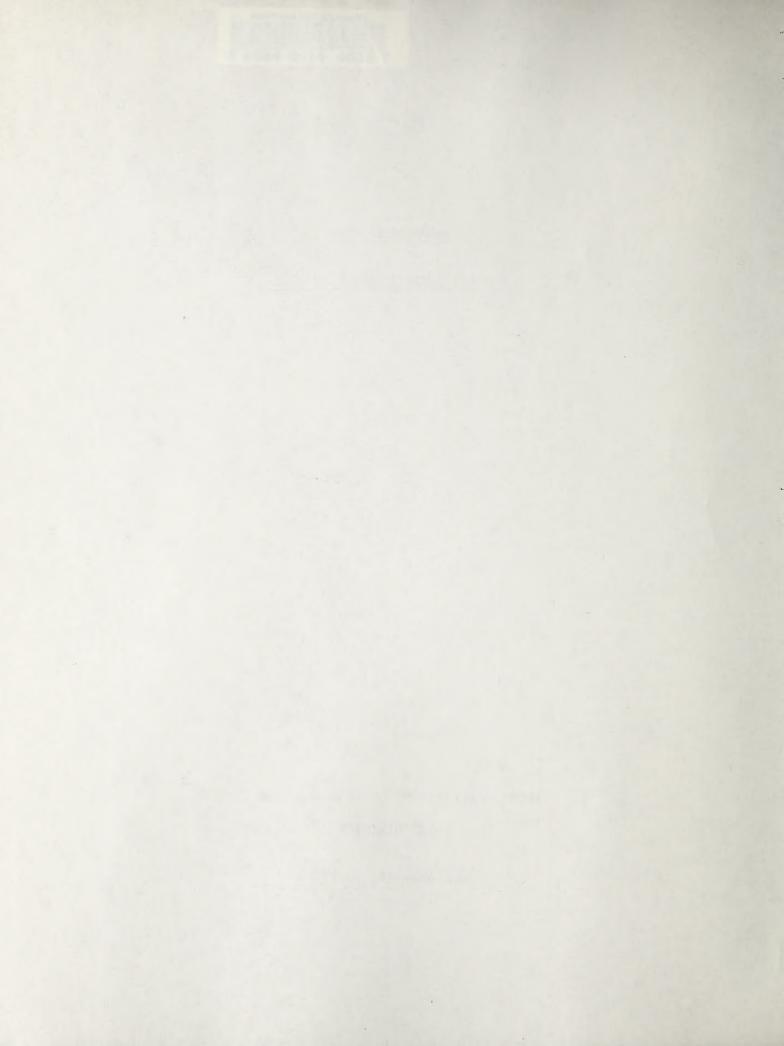
MANAGEMENT PLAN

ROOKERY STATE RECREATION AREA

MONTANA DEPARTMENT OF FISH AND GAME

PARKS DIVISION

December 15, 1977



STATE OF MONTANA DEPARTMENT OF FISH AND GAME HELENA, MONTANA

Office Memorandum

TO : See Distribution List

DATE: December 15, 1977

FROM : Ron Holliday

subject: Rookery Management Plan

Attached is a copy of the Rookery State Recreation Area Management Plan. Many of you have helped in the preparation of this document and we thank you for your assistance.

Like all plans, this document is flexible and will need to be periodically updated.

Let us know if you have any questions or see the need for revisions.

We have extra copies if you need them.

Distribution List

Ron Aasheim
Bureau of Outdoor Recreation
Dick Johnson (2)
Dennis Workman (2)
Merle Rognrud
Frank Gjersing (2)
George Holton
Erv Kent
Larry Putnam
Don Brown

Digitized by the Internet Archive in 2017 with funding from Montana State Library

PREFACE

Planning future management of the Rookery State Recreation Area is an important step in the process of providing a system of public parks and recreation areas in Montana. The management plan also provides a forum for intradepartmental communications and cooperation.

This plan describes the resources and environmental setting of the Rookery. It identifies departmental goals with regard to the wide variety of recreation resources available for public enjoyment. The methods used to accomplish the objectives of management are described in detail. Maps are used to illustrate the location of certain development objectives.

COAMBIN

work anglewrous store quantum off to commonte want pulsation as at a relations of all the state of the state

the political learning of the companies and entering and the control of the contr

ROOKERY STATE RECREATION AREA

I. BACKGROUND

A. Description of the Area

- 1. Region
- 2. Project Area

B. Physical Environment

- 1. Visual Setting
- 2. Geology
- 3. Soils
- 4. Surface Water
- 5. Ground Water
- 6. Climate
- 7. Air Quality
- 8. Aquatic
- 9. Wildlife
- 10. Vegetation

C. Human Environment

- 1. Historical and Archaeological
- 2. Transportation
- 3. Utilities
- 4. Sociological
- 5. Economic Profile
- 6. Recreation Use
- 7. Land Use

II. MANAGEMENT PLAN

- A. Introduction
- B. Goals
- C. Objectives
 - 1. Wildlife
 - 2. Fish
 - 3. Recreation and Parks

D. Methods and Procedures

- 1. Grazing management
- 2. Habitat management
- 3. Game harvest management
- 4. Recreation and Parks

ROOKERY STATE RECEIVATION AREA

- Cealing management
- Justingham Jablush .
- displacement appropriate and
 - adan't been not received

I. BACKGROUND

A. Description of the Area

1. Region

Hill county, one of the northern Montana Counties adjoining the U. S.-Canadian Boundary and almost midway between Montana's Eastern and Western borders, has a quite varied topography even though it is not nearly as mountainous as most of the state to the west and south. Small grains and some livestock are produced in most areas of the county. The Bearpaw Mountains are located in the southeastern portion and are primarily a range livestock area. The Rocky Boy Indian Reservation is located in the southeastern portion of the county.

The major crops grown in the county are winter wheat, spring wheat and barley. The largest acreage during the normal years is planted to winter wheat followed by barley and spring wheat; some oats, flax, rye and mustard are grown but the acreage normally is small.

The Milk River sub-bituminous coal field extends under virtually all of Hill County except the southwestern part.

The Milk River is an international stream, since its south fork originates in Glacier Park, flows into Alberta, Canada, where it joins the north fork, and then returns to Montana near the town of Goldstone.

Havre, the County Seat, and a port of entry from Canada, is located in the east central part of the county on the Milk River.

2. Project Area

Rookery State Recreation Area was purchased by the Montana Department of Fish and Game and consists of approximately 2120 acreas along the north shore of the Milk River approximately five miles upstream from Havre. Elevations range from 2400-2800 feet. In addition to providing hunting and fishing access, the area will provide a diversity of other outdoor recreation uses. Boating access is a primary consideration as the department has access both above and below the Rookery. This area will serve as an intermediate point in the long float now required between access points.

Bird watchers currently use the area and hunting is described as excellent by both bird and big game hunters. Large scale development is not anticipated as the general concensus of area residents and department personnel is that the area should remain relatively primitive.



B. Physical Environment

1. Visual Setting

The area includes a wide spectrum of visual setting ranging from the green riverbottom lands to the scenic terrain of the badlands. Gigantic rock formations provide a panoramic view of the surrounding rolling prairies.

2. Geology

The distribution of ground water in Hill County is directly related to a glacio-fluvial environment dating back approximately 1,000,000 years, to the beginning of the Pleistocene Era. The glacial epoch was marked by the advance and retreat of segments of multiple continental ice sheets and persisted until 50,000 years ago. A significant consequence of glaciation was the disruption of the drainage pattern of major streams and their tributaries. Big Sandy Creek and a portion of the Milk River occupy the pre-glacial Missouri River Valley.

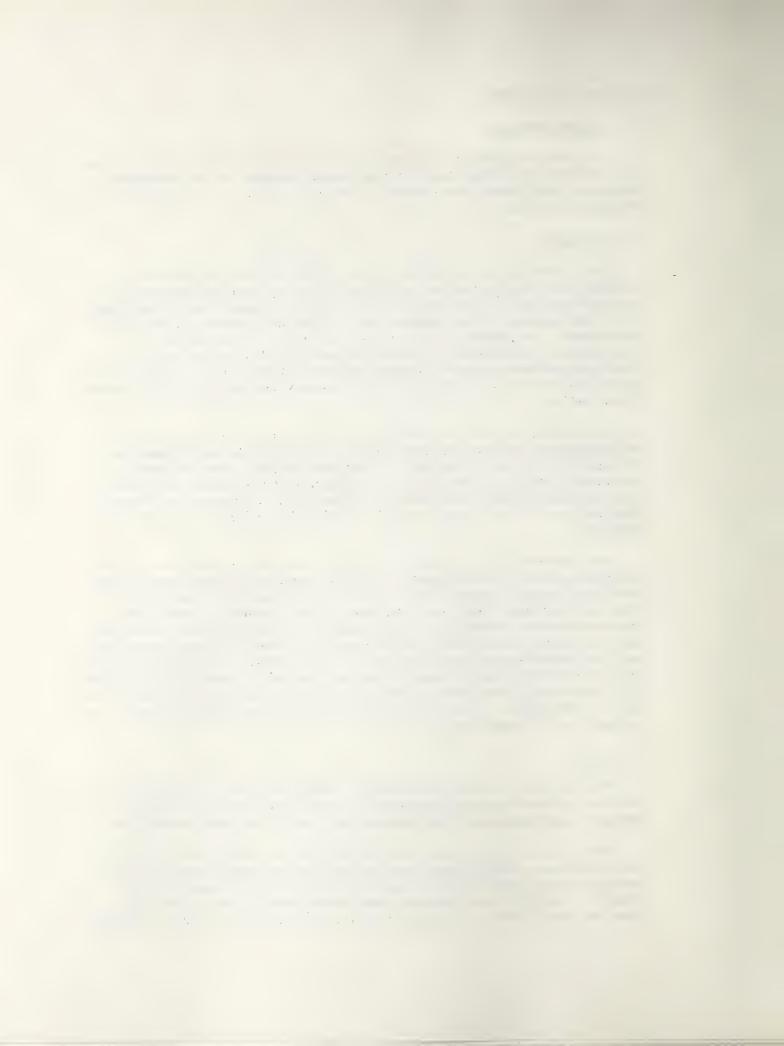
Structural dip in the county is to the north and east, with a maximum relief of approximately 4250 feet on the deeper formations. The outcrop pattern of bedrock formations reflects the influence of structural uplift of the Bearpaw Mountains, the Highwood Mountains south of Hill County, and the Sweetgrass Arch to the west. The outcrop pattern in the plains area is slightly modified by shallow faulting.

The Rookery Area is underlain by the Claggett Formation (Kcl) of Cretaceous Age. The Claggett is chiefly composed of dark gray shale with iron stained concretions; locally sandstone is present, with numerous bentonite beds near the base. The Claggett is overlain by the Judith River Formation (Kjr) composed of light-colored sandstone, with the lower third being somber gray siltstone and sandy shale as well as greenish-gray clay and some lignite beds. The surface deposits are predominately quarternary alluvium (Qal) which consists of valley fill containing some terrace deposits and glacial drift of Pleistocene Age in some areas. The older part of the alluvium, where present, is probably of Pliocene Age.

3. Soils

The profile of the soils in Hill County can best be described as comprising four separate categories. These are glacial, alluvial, terrace, and mountain, with glacial soil being the most predominant.

The alluvial soils occur largely within the Milk River Valley. The Milk River, an international stream flowing from Canada into the northwestern portion of Hill County, is the major stream in Hill County. The Milk River Valley from Fresno Dam to the Blaine County line has small tracts of land irrigated by individual pumping directly



from the river. The soils are mostly light to heavy textured river alluvium and colluvial-alluvial outwash fans from small coulees that drain into the Milk River. The crop yields of irrigated alfalfa, small grains, corn silage, and potatoes are influenced by the quality of soil; the higher yields are obtained from light to medium textured alluvial soils.

The north side of the Milk River Valley near Havre is bordered by a rough, steeply eroded escapment that is known as the Havre Badlands. The recent erosion of the Badlands has washed a high alkaline silty soil onto the river-deposited alluvial fans rendering the areas impractical for irrigation or dryland farming.

The area is dominated by Brown and Solodized-Solonetz soils of the northern till plain. They are characterized by their vesicular, platy surface soils over a dense, hard, clayey subsoil, with columnar structure. The upper part of the subsoil often has a light-colored (bleached) zone 1-4 inches thick. This bleached zone would not be confused with the line zone which generally occurs below the clay-pan. These soils often occur as "Slick spots", "Scab land" or "Micro-pits". Greasewood is common vegetation on these soils.

The extremely fine textured soils such as Bowdoin clay which tend to predominate in the Milk River Valley can be related to the parent materials. These soils are formed from various outwash materials of the Bearpaw shale formations that outcrop in the breaks bordering the valley. The use of these soils for irrigation depends upon the depth to the light textured substratum; in general the areas with less than 36 inches of clay over the light-textured material can be utilized by growing western wheat grass (blue joint) and some alfalfa hay crops. The deeper clay soils are a risk for even blue joint hay production. The surface generally becomes saline and alkaline-saline in nature, retarding plant growth and eventually causing a non-productive area.

4. Surface Water

Fresno Reservoir was built on the Milk River above Havre in 1939. The reservoir is located 13 miles west of Havre. The drainage area is 3766 square miles, of which 671 square miles are considered non-contributing. Records are available from January 1940 to date. The maximum contents observed was 154,000 acre-feet (April 3, 1952) and the minimum, no storage (February 18 to March 6, 1950). The usable capacity is 127,200 acre-feet between elevations 2530 feet (crest of permanent spillway). Water is used for irrigation.

The Milk River below Fresno Reservoir is closely regulated by a series of dams supplying water to irrigation districts. Excellent fishing often occurs in the relatively clear waters for several miles below Fresno Dam.

The Montana State Water Pollution Control Council has given the Milk River a water use classification of B-D3. Under this classification the quality of these waters shall be maintained suitable for



drinking, culinary and food processing purposes after adequate treatment equal to coagulation, sedimentation, filtration, disinfection, and any additional treatment necessary to remove naturally present impurities; bathing, swimming, and recreation, growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers.

5. Ground Water

There is reasonable assurance of obtaining some ground water almost everywhere in the county. The more accessible aquifers are lenticular, alluvial lenses of limited lateral extent and variable reservoir character. However, there is no certainty of finding a particular aquifer at a specific site and a specific depth. Groundwater is abundant for domestic and stock needs, municipal supplies, and limited irrigation. Alluvium (Quaternary) is stream, river, and lake deposits composed of silt, sand, gravel, and clay, mixed and interbedded, of recent geologic age and normally unconsolidated or only weakly cemented. In Hill County these are alluvial fans of tributaries which head in the mountains and flood plain deposits of the Milk River.

Gravels of the low alluvial fans are good aquifers but have limited water supplies. Shallow fans, about 20 feet deep, have a tendency to dry up in late summer when their water supply drains into the depleted Big Sandy Creek. Adequate supplies for domestic use are obtained from fan gravels at depths of about 35-60 feet.

Flood plain deposits of the Milk River are from 25 to 75 feet thick and are poor aquifers. These deposits contain much clay derived from glacial and paludal material through which the streams and their tributaries flow.

6. Climate

Situated well away from the Continental Divide, the climate of Hill County is classifiable as "continental" most of the time. However, being in the transition area between the actual east slopes of the Rockies and the "pure" continental climates a few hundred miles to the east, weather patterns several times a year closely follow those of the east slopes. In fact, cold season "chinooks" are fairly common, and may last for days at a time, but they don't develop the strength or persistence commonly observed to the west nearer to the mountain range itself. Winter cold waves occur several times a season, and may occur from late October to early April.

Summers generally are warm and pleasant, with most rain coming from afternoon showers or thunder showers. Though the highest temperatures ever observed in the county have been in the 110° range, this extreme is rare, and only about 15 to 20 days a year will warm to as high as 90° or higher.



Precipitation varies considerably across the county, but most of the valley or relatively flat areas have averaged from 11 to 12 inches over a period generally of about 30 years. Rains heavy enough to cause flooding don't occur very often, but sometimes a late winter accumulation of snow on frozen ground can cause rivers to overflow. When snow runoff and rainfall combine during this period, flooding along the Milk River may be troublesome, but fortunately the combination only has a return period of something more than 20 to 25 years.

7. Air Quality

The atmosphere in this vicinity is assumed to be relatively pure with only minor pollutants from vehicle exhaust and dust.

8. Aquatic

The Milk River provides excellent fishing for northern pike, walleye and rainbow trout. Walleyes up to 12 pounds and northern pike up to 17 pounds have been taken from the lower river in recent years.

9. Wildlife

- a. Species present on the area:
- 1) Game Whitetail deer, mule deer, pronghorn antelope, ringnecked pheasant, sharptail grouse, Hungarian partridge, sage grouse, and a variety of waterfowl which includes Canada geese, mallard, pintail, greenwing teal, bluewing teal, American widgeon, shoveler and common goldeneye.
- 2) Furbearers muskrat, beaver, mink, raccoon, badger and bobcat.
 - 3) Predators coyote, red fox, striped skunk.
- 4) Small mammals white-footed mouse, deer mouse, cottontail, whitetail jack rabbit, and others.
- 5) Nongame birds a complete list of nongame birds has not been completed at the present time.

b. Population Status:

1) Relative abundance by species

Whitetail deer - abundant
Muskrat - abundant
Beaver - abundant
Pheasant - abundant
H. Partridge - abundant
Mallard - abundant



Mule deer - common

Pronghorn - common during harsh winters

Mink - common
Raccoon - common
Badger - common
Coyote - common
Red fox - common
Striped skunk - common
Sharptail grouse - common

Sage grouse - common in one coulee

Canada geese - common
B.W. Teal - common
G.W. Teal - common
Pintail - common
Gadwall - common
American Widgeon - common
C. Goldeneye - common
Bobcat - rare

All small mammals listed are common

2) Seasonal occurrence

All species listed with the exception of the pronghorn antelope and the waterfowl occur year long. During winter the waterfowl migrate south.

Livestock grazing has now been completely eliminated so as to allow natural revegetation of the area which will improve aesthetic, natural and wildlife values.

10. Vegetation

Rookery State Recreation Area includes a wide spectrum of vegetative types ranging from bottom land Cottonwood-Willow type to Badlands type containing prickly pear, fringed sage and horizontal juniper.

The river bottom contains heavy stands of cottonwood, willow and buffalo berry with a good understory of rose, snowberry and chokecherry.

The irrigable lands, if not farmed, are a grassland sagebrush type and are heavily grazed. The native vegetation on a large part of the area is blue gamma and its associated species. Other grasses such as green needle grass, needle and thread, western wheatgrass and fescue are common. Salt grass is found on the more alkaline, poorly drained depressions and stream channels.

Croplands support barley, grain and alfalfa. Crested wheatgrass has been introduced on an experimental basis.

C. Human Environment

1. Historical and Archaeological



Hill County, located in north central Montana, was named after James J. Hill, Director of the Great Northern Railway. The county was created on September 28, 1912, and included all of the north-western part of what was originally Chouteau County.

Havre, the county seat, is not only the largest town in Hill County, but in northern Montana. Havre was actually developed with the building of the St. Paul, Minneapolis, and Manitoba Railway which connected with the Montana Central in 1887. In 1889 these lines were formed into the Great Northern Railway system and the eventual building of a line to Great Falls. Havre became the division point for the railroads, headquarters for the western extension for the Pacific Coast, and a stock shipping center for the area. Bull Hooks Siding was the first name given for the town of Havre. The railroad company did not like the name of Bull Hooks Siding and decided to change it and name it after Simon Pepin, a well-known pioneer of the region. However, Mr. Pepin suggested that they name it after his old home town, Havre, France, and the railroad consented. Simon Pepin was well known throughout the state and adjoining territory as an industrious freighter, a successful rancher and stock raiser, and a capable and resourceful businessman.

In 1904 Canada decided to divert water from the Milk River for use in Canada and threatened the water supply along the Milk River Valley in Montana. A treaty was negotiated between Canada and the United States in 1909 dealing with the apportionment of water in the St. Mary and Milk Rivers for Montana, and Alberta and Saskatchewan, Canada. It was not until 1931 that a serious situation occurred which eventually led to a plan of water storage to alleviate severe crop damage caused by water shortage in the Milk River. Fresno Dam, located about twelve miles northwest of Havre on the Milk River, was constructed in 1936 climaxing thirty years of negotiations with Canada. Fresno Dam cost \$930,804 and was constructed as a water conservation and flood control project.

Prior to 1910 the Hill County area was occupied almost exclusively by ranchers engaged in the business of raising cattle, sheep and horses. The influx of settlers since that time has transformed the large ranch ranges into a comparatively well settled farming region with the principal crops being spring and winter wheat. Today, the principal industry in the country is farming with some dairying and stock raising. The town is a center for oil and gas development for the surrounding area. Northern Montana College is located in Havre.

One of the more prominent historic sites in the region is the Chief Joseph Battleground of the Bear's Paw Mountains. Here was the site of the surrender of Chief Joseph and the Nez Perce on October 5, 1877. After a journey of nearly 2,000 miles the Indians were captured by Colonel Nelson A. Miles only 30 miles from Canada. It was here that Chief Joseph, tired and disheartened, was reported to have said when surrendering "....From where the sun now stands, I will fight no more forever".

Another important site is Fort Assiniboine, near Havre, which was established in 1879 to help the Army administer and patrol the Milk River country. It evolved into an important regimental training post.



The Rookery State Recreation Area itself has been identified as an interesting archaeological area. The Fox Burial Site (244L413) is a single historic burial located on the property (Map 2). Excavations resulted in the salvaging of a virtually complete, primary human interment on June 9, 1971. Placed atop a rocky knob on the northern periphery of the property was the flexed body of a middle-aged female American Indian, tribe unknown. A precise date on the Fox Burial will continue to remain elusive since no diagnostic grave goods were found, therefore the positive identification of tribal affiliation remains an unresolved question.

In addition, there is an area north of the county road with several tepee rings (Map 2). This area will require further archaeological research to determine the extent of historical significance.

2. Transportation

Transportation facilities in Hill County consist of the Great Northern Railway and U.S. Highway #2 and #87. U.S. Highway #2 traverses the county east and west parallel to the Great Northern Railway. U.S. Highway #87 follows a route southwest from Havre to Great Falls. A municipal airport is maintained at Havre and is located four miles west on U.S. Highway #2.

The Rookery is currently served by a well graded gravelled county road extending westerly and northwesterly about four miles from Havre. This road traverses the entire length of the property and will provide access to the area.

3. Utilities

Public facilities, such as electricity, telephone, roads and schools are considered good in Hill County.

Rookery State Recreation Area is serviced by Mountain Bell for telephone service. Electricity is supplied to the area by the Hill County Electric Co-op.

Current leases for natural gas wells on the property are held by Phillips Petroleum.

4. Sociological

Settlement in northern Montana dates from the time that the unreserved portions of the Indian reservations were open for settlement in 1887, although a few squatters appeared around trading posts before this time.

The people attracted to the public lands during the dryland movement came largely from the industrial centers and agricultural districts of the north central states. However, during the later part of the movement, a few came in from Washington as well as eastern areas.

Hill County was sparsely settled during the time when stock raising was the chief industry. Between 1910 and 1917 the urban and farm population grew rapidly. The U.S. census report for 1920 placed the total population at 13.958.



Norwegian and German were the predominant nationalities during the settlement period. At present all nationalities are represented. The location of the Rocky Boy Indian Reservation tends to concentrate the Indian population in the southern part of the county. Most of the people now living in the county are native born. Community boundaries in the area are determined largely by trade area boundaries and by communication facilities. In some instances nationality and religious differences have been factors in determining community boundaries, but this is the exception rather than the rule.

Hill County farm and ranch operators are also land owners in the main. Approximately 90 percent of them hold title, or are in the process of gaining title, to at least a portion of the land under their total operation. In the past many of the farms were strictly one crop units; however, today most farms now produce more than one variety of cash crop.

There are some areas of the county principally in the Havre vicinity where urban development is taking place. To the east and west of Havre, along Highway #2, there are housing and commercial developments.

Land-use adjustments in recent years has sharply increased taxes due to school and public service needs. Adjustments in taxes on agricultural lands are continually being made. These adjustments reflect up-grading agricultural lands generally as well as making changes needed because of changes in land use.

5. Economic Profile

The total population of Hill County in 1975 was 17,982 (estimated). Between 1960 and 1970 the population decreased 14.8 percent (Chart 1). Rural population has decreased as has the net percentage of rural versus urban population. The 18-64 age group, from which most employment is drawn, comprised 4783 males or 50.8 percent of the group total in 1970. This same group had 4625 females or 49.2 percent of the group total (Chart 2).

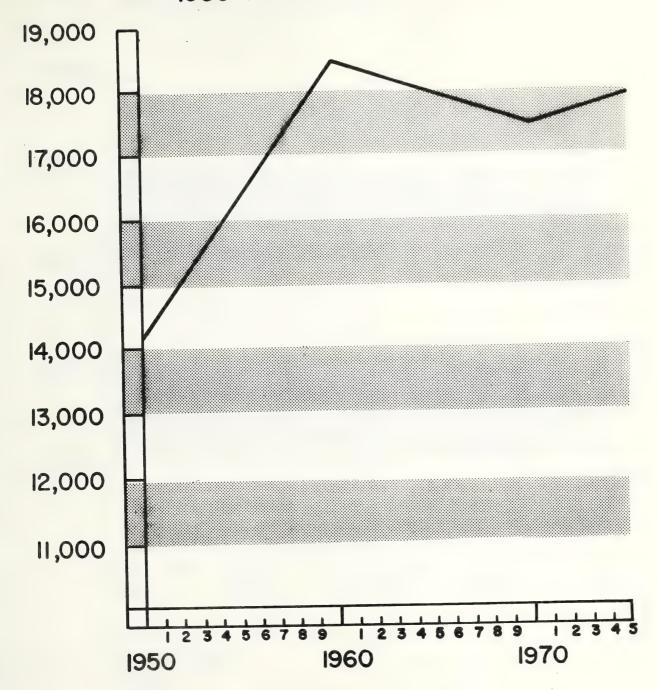
In terms of total earnings in 1972 in Hill County, farm earnings accounted for 11.6 percent and non-farm, 88.4 percent. This was a considerable change from 1968 when farm earnings accounted for 26.7 percent and non-farm, 73.3 percent. If the non-farming category is subdivided according to type of activity and compared with farming for percentage of total earnings, state and local government accounts for 13.5 percent, or if combined with federal government, 21.1 percent. Transportation, communication and public utilities make up 20.3 percent of the total earnings, while wholesale and retail trade constitute 19.3 percent. Within farming, livestock and livestock products made up 20 percent of the cash receipts and crops 80 percent (Chart 3).

Earnings and personal income should increase in the future even without speculative mining activity. Rapidly rising agricultural demands should cause prices to stabilize at higher levels, and with improved productivity, income should increase (Chart 4).



CHART 1

Population change for Hill County from 1950 to 1975



SOURCE: Profiles (Hill Co.), Dept. of Community Affairs June 75



CHART 2

Percent of total employment for different industries in Hill County

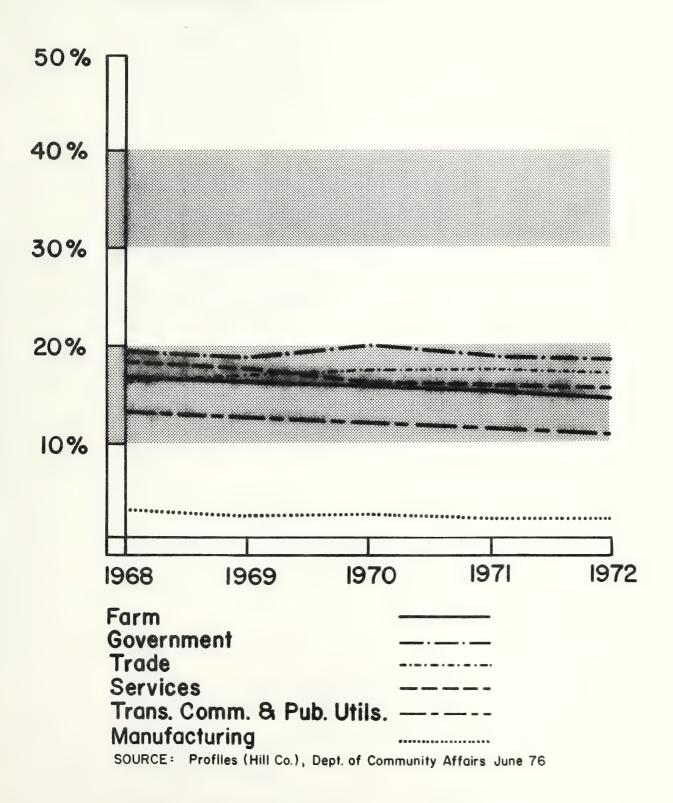
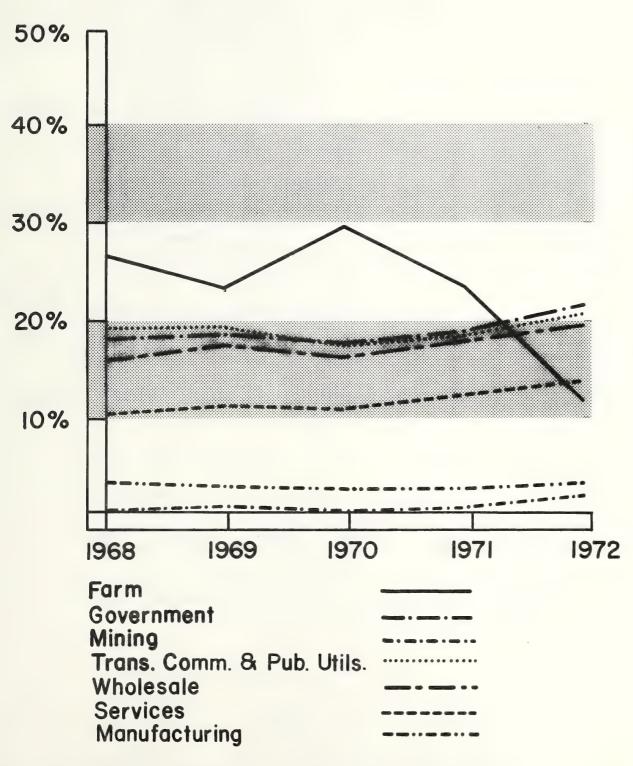




CHART 3

Percent of total earnings for Hill County for selected industries

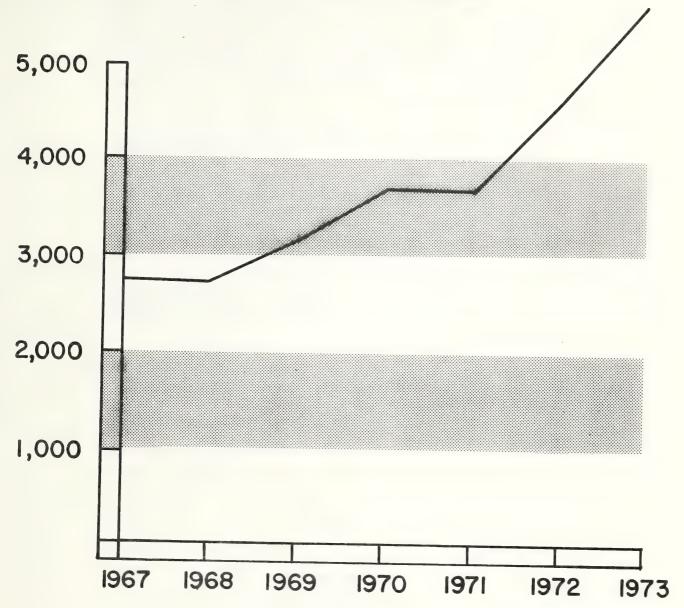


SOURCE: Profiles (Hill Co.), Dept. of Comm. Affairs June 76



CHART 4





SOURCE: Profiles (Hill Co.), Dept. of Comm. Affairs June 76



Havre's economy was reported to be good in 1975 with activities in agriculture, railroad, and the community's new hospital mainly responsible. For the first 11 months of 1975, there were 119 building permits issued with an average valuation of \$28,000. One year earlier for the same period, 109 permits were issued averaging \$15,880. Wholesale and retail trade and service industries remained steady during the past year and good weather conditions allowed most construction projects to continue over the winter.

Hill County has a total land area of 1,872,640 acres (1967). Agricultural use makes up approximately 94 percent of the total of which 55.7 percent is in cropland, 35.1 percent is range and 3.2 percent is pasture.

Hill County lies east of the extensive oil and gas producing area along the axis of the Sweetgrass Arch, and has not been as thoroughly explored, but it includes the Box Elder, Havre, and Kremlin gas fields. The Havre gas field was discovered in 1914 and eventually 26 wells were drilled. Gas came from the Eagle Sandstone at a depth of about 1000 feet. This gas was marketed in Havre for about ten years. The field is now abandoned. Some coal, bentonite, oil and gas exist in commercial quantities, but the remainder of the minerals are not expected to contribute to the economy of the area.

6. Recreation Use

The State of Montana Comprehensive Outdoor Recreation Plan for this area outlines several needs for recreational facilities for people of the area including:

- 1. It appears that residents of the region desire outdoor recreation that centers around natural areas and water-based recreation areas.
- 2. Day use is important to the residents of this region as are facilities in areas located close to home.

The plan also states:

"Communities along the Milk River are in need of facilities closer to where they live. Investigation should be made to fund suitable sites for recreation on the Milk River, particularly near the cities and towns. The river and associated areas is attractive and some use for recreation would be an important addition to the recreational resources of the region."

7. Land Use

The Rookery State Recreation Area was purchased in 1976 from the Fox Grain and Cattle Company. The area was primarily used for grazing cattle with approximately 97 acres of dry land barley, 33 acres of irrigated barley, 54 acres of summerfallow and 124 acres of irrigated alfalfa and hay.



Since purchasing the property the Department of Fish and Game has entered into a sharecropping agreement. The agreement was initiated to allow planting of necessary food and cover crops for upland birds that inhabit the area. In 1977, the lease with the sharecropper will be reviewed and cropping patterns will be adjusted. Plots will be broken by shelter belts and other diverse vegetation which will provide cover for wildlife.

The existing ranch buildings are being maintained for department administrative purposes. Structures used for irrigation and stock watering will be maintained for recreation and irrigation of share-cropped land and cover crops for wildlife.

Approximately 5 miles of county road bisect the area. A short access road serves the buildings from the county road. One or two trails provide access to the river (Map 1).

The locations of public utilities are illustrated on Map 1.

II. MANAGEMENT PLAN

A. Introduction

The Milk River system and its bottomland is essential to much of the area's pheasant and waterfowl populations. Economics have dictated that the bottomland habitats associated with this river will continue to be developed for the sake of agricultural and industrial progress. Increasingly intensive and extensive agriculture has continued to reduce available wildlife habitat.

With these problems in mind the Montana Fish and Game Department purchased approximately 2120 acres of land from the Fox Grain and Cattle Company in 1976.

B. Goals

To manage the Rookery natural resources for public recreation and enhance fish and wildlife habitat.

C. Objectives

1. Wildlife

- a. The primary objective of wildlife management is to develop and maintain the area to provide maximum hunter days of recreation for whitetail deer, pheasants and Hungarian partridge. Secondary emphasis will be placed on sharptail grouse, waterfowl and mule deer hunting.
 - b. To manage vegetation to produce optimum wildlife habitat.
- c. To demonstrate the ease of implementation and compatibility of game management plans with farmers and ranchers.



2. Fish

- a. To maintain and enhance fish habitat in the Milk River.
- b. To maintain an existing trout fishery on the reservoir.

3. Recreation and Parks

- a. To provide public land for outdoor, nonmotorized recreation.
- b. To provide access to the Milk River for boating.
- c. To provide public land for a rifle, pistol and archery range in the Havre area.
- d. To quantify recreational use of the Rookery and subdivide the information by type of use.
 - e. To assess the archaeological significance of the area.
 - f. To maintain and preserve the aesthetics of the Rookery.
- g. To provide information and educate the public as to the opportunities, history and natural features of the area.

D. Methods and Procedures

1. Wildlife

a. This objective will be accomplished primarily by habitat development through natural and artificial means. Natural increases in vegetation resulting in increases in habitat for most species has occurred since the elimination of grazing in June of 1976. Further increases can be expected in the future.

Artificial plantings in 1976 and 1977 included approximately 140 acres of barley in 1976, approximately 90 acres of barley in 1977, 3900 trees including American plum, chokecherry and tartarian honeysuckle and approximately 10 acres of tall wheatgrass, yellow blossom sweetclover and alfalfa mixed. Approximately 100 acres were summerfallowed during 1976 and 1977.

Wildlife population distribution and densities were recorded during the winter of 1976-77. Based on this data and other studies, habitat alterations were initiated in the spring of 1977 to increase wildlife numbers. These alterations were made by using a sharecrop lease to accomplish the following: Maintaining two large grain fields (over 25 acres in size) for waterfowl feeding areas, dividing a 46 acre field into three small fields by the use of shelterbelt plantings to increase pheasant utilization and planting tall cover strips (a mixture of tall wheatgrass and yellow blossom sweetclover) on experimental plots in dryland and irrigated areas (Map 2).



Wildlife populations will continue to be monitored to determine further characteristics of the vegetational types used by wildlife. Based on this data and the results of the experimental plantings, future changes in vegetation types to increase wildlife numbers may include the following: reducing the size of cultivated fields, converting portions of alfalfa fields to grain and tall cover areas, conversion of certain grasslands to cultivation, additional tree and shelterbelt plantings, changing densities and successional stages of cover by grazing or other means and leaving present cultivated areas to return to native vegetation.

Artificial nesting sites for waterfowl are being discussed for establishment in some of the oxbows.

Harvest of surplus wildlife populations will be regulated by manipulation of hunting seasons.

b. The compatibility of game management plans with farmers and ranchers will be demonstrated by the use of a sharecrop lease agreement and public tours of the area.

2. Fish

a. Riparian vegetation will be encouraged by the limination of livestock from the area. Bank erosion will be reduced which will improve fish habitat.

Two eroded river bends were stabilized with car bodies by the previous owners. Alternative methods of bank stabilization will be evaluated. Cost of removing the car bodies and stabilizing the banks by another method will be determined and a project will be proposed to remove and possibly replace the car bodies (Map 3).

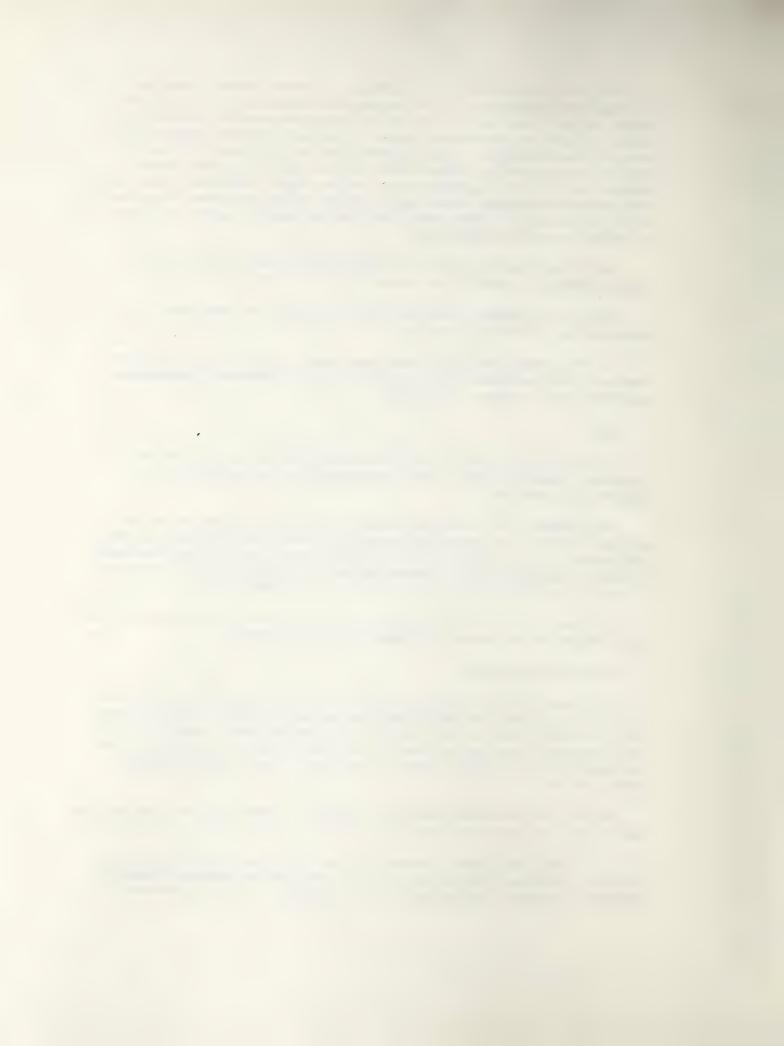
b. The existing trout fishery in the reservoir will be maintained by stocking as no natural reproduction exists (Map 3).

3. Recreation and Parks

a. Seven parking areas are planned which will provide easy access to the Rookery and the Milk River for recreationists. Picnic sites will be established in conjunction with parking areas where the sites are suitable. The picnic sites would include tables, fireplaces and garbage cans as a minimum facility and may include vault toilets where needed.

An orientation area will be developed with map sign and regulations which apply to the area (Map 3).

b. Three boat access points will be developed on the Rookery (Map 3). The boat access site on the west end was acquired from the adjacent landowner by trading 25-year easements. The Department of



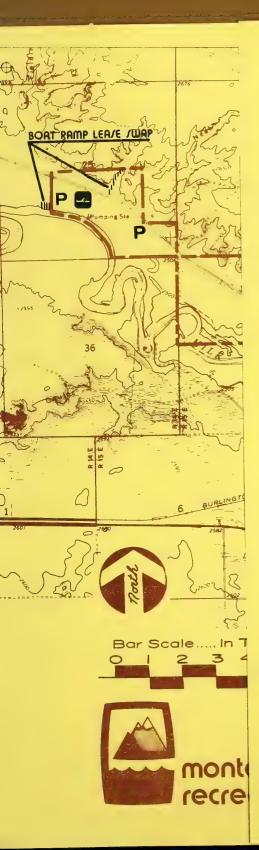
Fish and Game gave a 25-year easement for a road from the county road to the northern Rookery property boundary in Section 25 in return for a boat access and parking area adjacent to the western Rookery boundary in Section 25.

c. Shooting range land was selected by the local range organizers with approval from the Fish and Game Commission. The property will be leased to the local governmental agency that sponsors the shooting range project construction.

Operation and maintenance of the range will be the responsibility of the sponsoring agency (Map 3). A portion of the shooting range will be acquired from an adjacent landowner by trading leases. The Department will give a lease on a small tract of farmland in Section 27 in return for a lease on a small tract of badland, which is a natural backstop for the shooting range in Section 28.

- d. To accomplish objective C3d, we would have to establish a comprehensive survey and counting program.
 - e. An archaeological survey will be conducted on the Rookery.
- f. Constructed facilities will be kept to a minimum. Landscape architectural techniques will be applied to all developments.
- g. Interpretation of natural and historic features will be accomplished with signs and public information programs.

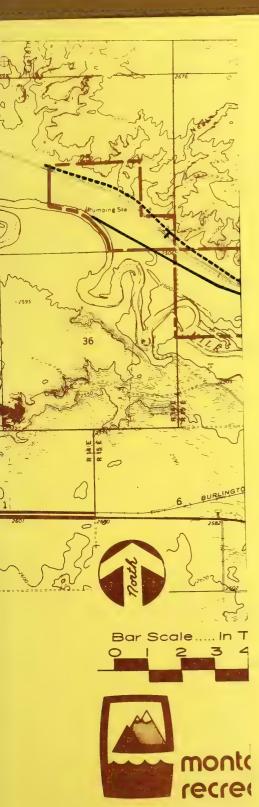














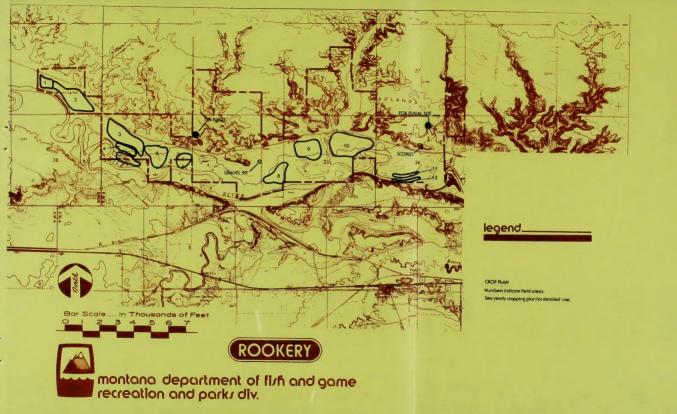












Wish and Game gave a 15-year easement for a road from the county road to the northern Bookery property boundary in Section 25 in return for a host access and parking area adjacent to the western Ecology boundary in Section 25.

shooting range land was selected by the local range organizers with approval from the Hish and Game Commission. The property will be leased to the local governmental agency that approve the shooting

